

WHAT IS CLAIMED IS:

1. A vehicle seat storage assisting apparatus for a foldable seat including a seat cushion and a seat back folded on the seat cushion side, the
5 apparatus comprising:

first and second seat rotating shafts provided at both sides of the seat cushion in such a manner that the seat can be rotated to a front side and a rear side of a vehicle body about the first and
10 second seat rotating shafts;

first floor support bracket mounted relative to a vehicle body; and

a first resilient member disposed between the first seat rotating shaft and the first floor
15 support bracket for providing a biasing force that gradually decreases as the seat rotates towards one of the front and rear sides of the vehicle body.

2. The vehicle seat storage assisting apparatus
20 according to claim 1, further comprising:

a second floor support bracket mounted relative to the vehicle body; and

a second resilient member disposed between the second seat rotating shaft and the second floor
25 support bracket for providing a biasing force that

gradually decreases as the seat rotates towards the other of the front and rear sides of the vehicle body.

5 3. The vehicle seat storage assisting apparatus according to claim 2, wherein the first resilient member provides the biasing force that gradually decreases as the seat rotates towards the rear side of the vehicle body until the seat becomes
10 approximately vertical; and

 wherein the second resilient member provides the biasing force that gradually decreases as the seat rotates toward the front side of the vehicle body until the seat becomes approximately vertical.

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 4. The vehicle seat storage assisting apparatus according to Claim 2, wherein the biasing force of the first resilient member is set to be smaller than the weight of the seat, and the biasing force of the
20 second resilient member is set to be smaller than the weight of the seat.

 5. The vehicle seat storage assisting apparatus according to Claim 3, wherein the biasing force of
25 the first resilient member is set to be smaller than

the weight of the seat, and the biasing force of the second resilient member is set to be smaller than the weight of the seat.

5 6. The vehicle seat storage assisting apparatus as set forth in Claim 4, wherein each of the first and second resilient members is set such that the biasing force thereof gradually decreases as the seat which is being in a horizontal state rotates
10 from the horizontal state to a vertical state and also such that no biasing force is imparted in a range where the seat rotates from the vertical state to a horizontal state which is situated 180 degrees opposite to each other, respectively.

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 7. The vehicle seat storage assisting apparatus as set forth in Claim 5, wherein each of the first and second resilient members is set such that the biasing force thereof gradually decreases as the
20 seat which is being in a horizontal state rotates from the horizontal state to the vertical state and also such that no biasing force is imparted in a range where the seat rotates from the vertical state to the horizontal states which are situated 180
25 degrees opposite to each other, respectively.

8. The vehicle seat storage assisting apparatus as set forth in Claim 6, wherein each of the first and second resilient members is a spiral spring.

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9. The vehicle seat storage assisting apparatus as set forth in Claim 7, wherein each of the first and second resilient members is a spiral spring.

10 10. The vehicle seat storage assisting apparatus as set forth in Claim 2, wherein the first and second resilient members are respectively provided at both sides of the foldable seat.

15 11. A vehicle seat storage assisting apparatus for a foldable seat including a seat cushion and a seat back that is operable to be folded on the seat cushion side, the apparatus comprising:

a seat rotating shaft provided on or near the
20 rear of the seat cushion in such a manner that the seat can be rotated to a front side and a rear side of a vehicle body about the seat rotating shaft;

a floor support bracket mounted relative to a vehicle body;

25 a resilient member disposed between the seat

rotating shaft and the floor support bracket for providing a biasing force that gradually decreases as the seat in a horizontal state rotates about the seat rotating shaft until the seat becomes
5 approximately vertical.

12. The vehicle seat storage assisting apparatus according to claim 11, wherein the resilient member is a spiral spring.

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13. A vehicle seat storage assisting apparatus for a foldable seat including a seat cushion and a seat back operable to be folded on the seat cushion side, the apparatus comprising:

15 first and second seat rotating shafts provided at both sides of the seat cushion in such a manner that the seat cushion and the seat back so folded up together can be rotated to a front side and a rear side of a vehicle about the first and second seat
20 rotating shafts;

first and second floor support brackets mounted relative to a vehicle body;

a first resilient member disposed between the first seat rotating shaft and the first floor
25 support bracket for providing a biasing force that

gradually decreases as the seat which is being in a horizontal state forward of the seat rotating shafts rotates from the horizontal state to a vertical state; and

5 a second resilient member disposed between the second seat rotating shaft and the second floor support bracket for providing a biasing force that gradually decreases as the seat which is being in a horizontal state rearward of the seat rotating
10 shafts rotates from the horizontal state to the vertical state.

14. The vehicle seat storage assisting apparatus according to Claim 13, wherein the biasing
15 force of the first resilient member is set to be smaller than the weight of the seat, and the biasing force of the second resilient member is set to be smaller than the weight of the seat.

20 15. The vehicle seat storage assisting apparatus as set forth in Claim 13, wherein each of the first and second resilient members is set such that the biasing force thereof gradually decreases as the seat which is being in a horizontal state
25 rotates from the horizontal state to the vertical

state and also such that no biasing force is imparted in a range where the seat rotates from the vertical state to a horizontal state which is situated 180 degree opposite to the horizontal state.

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16. The vehicle seat storage assisting apparatus as set forth in Claim 14, wherein each of the first and second resilient members is set such that the biasing force thereof gradually decreases
10 as the seat which is being in a horizontal state rotates from the horizontal state to the vertical state and also such that no biasing force is imparted in a range where the seat rotates from the vertical state to a horizontal state which is
15 situated 180 degree opposite to the horizontal state.